

FIG. 1

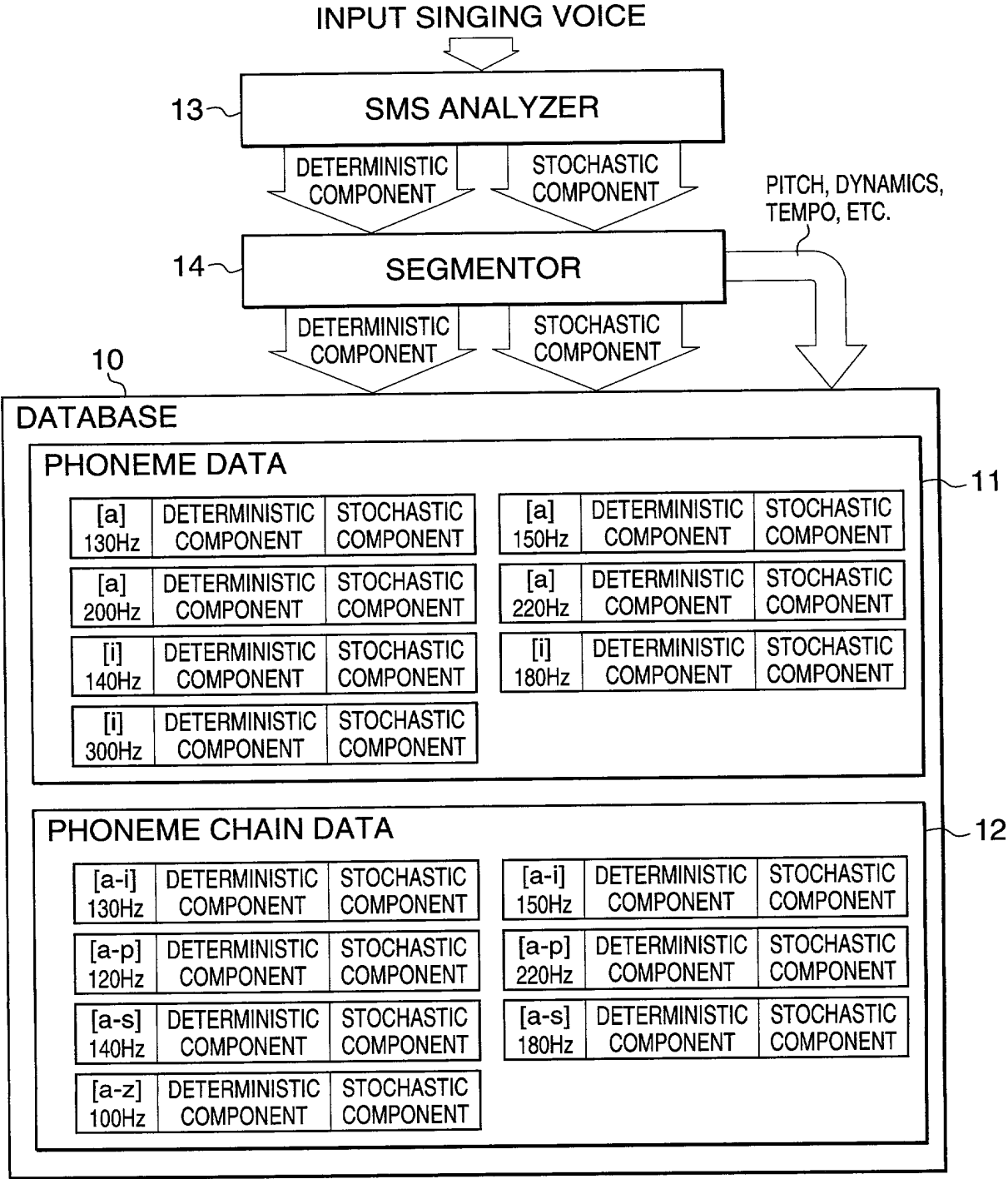
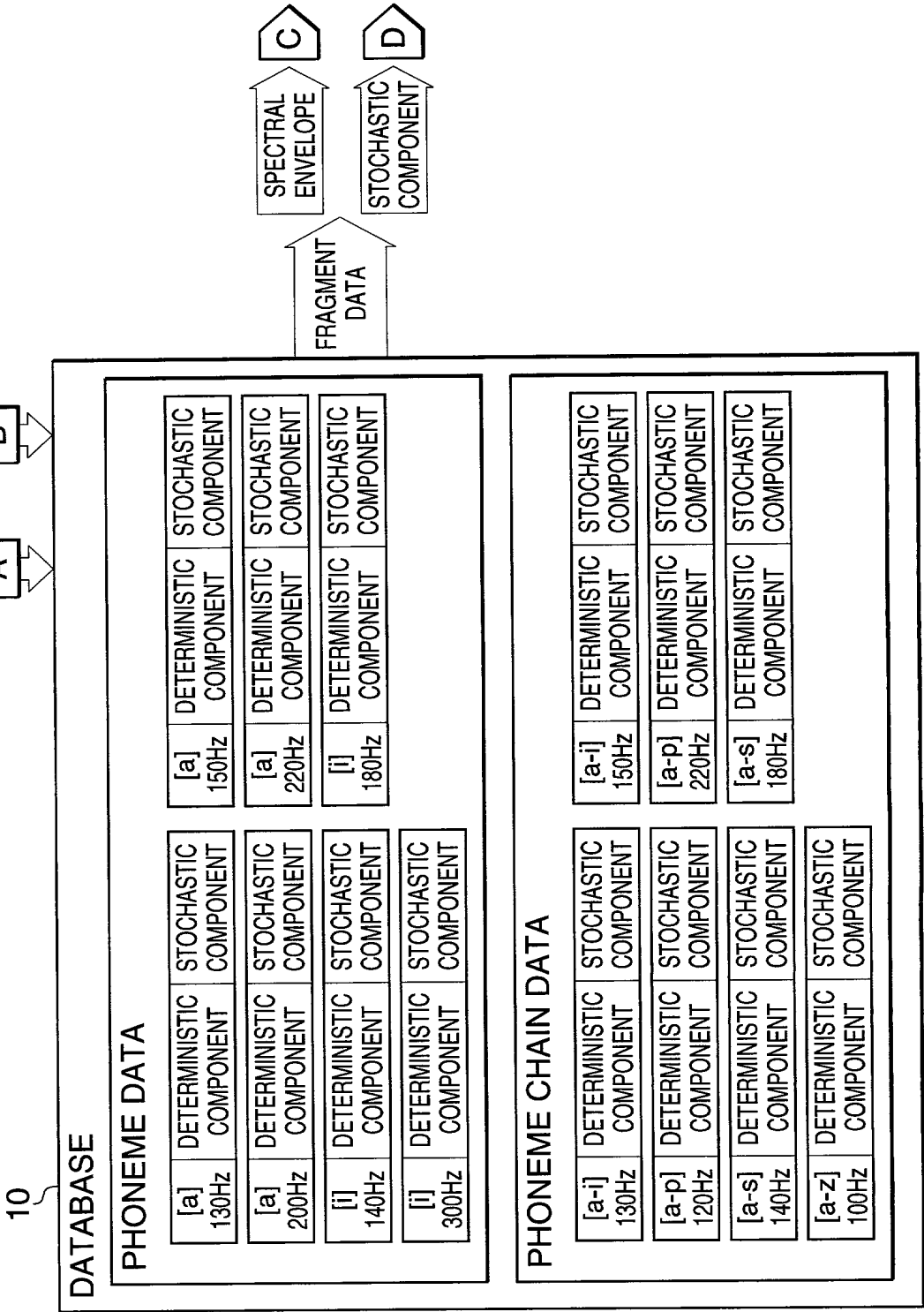
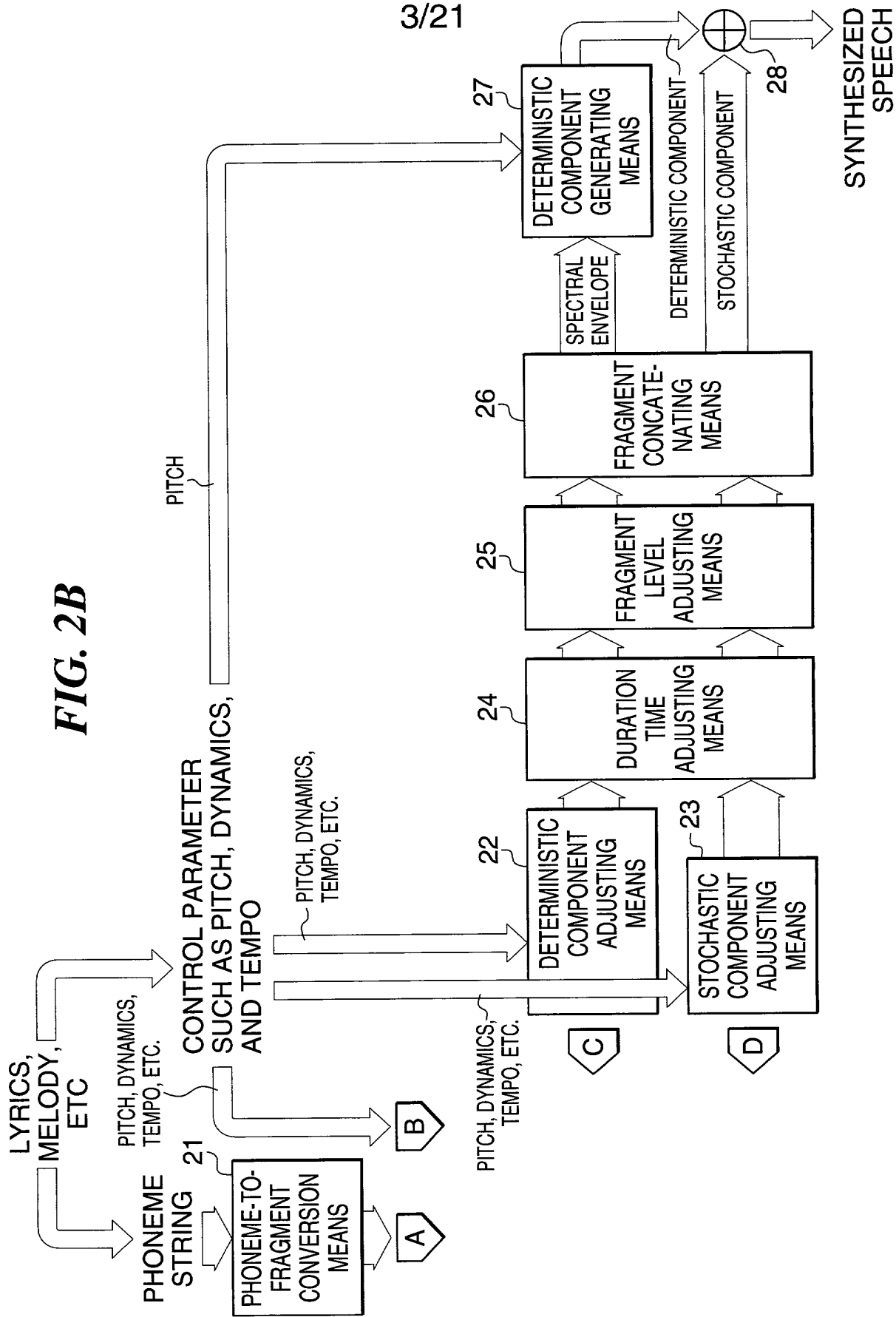
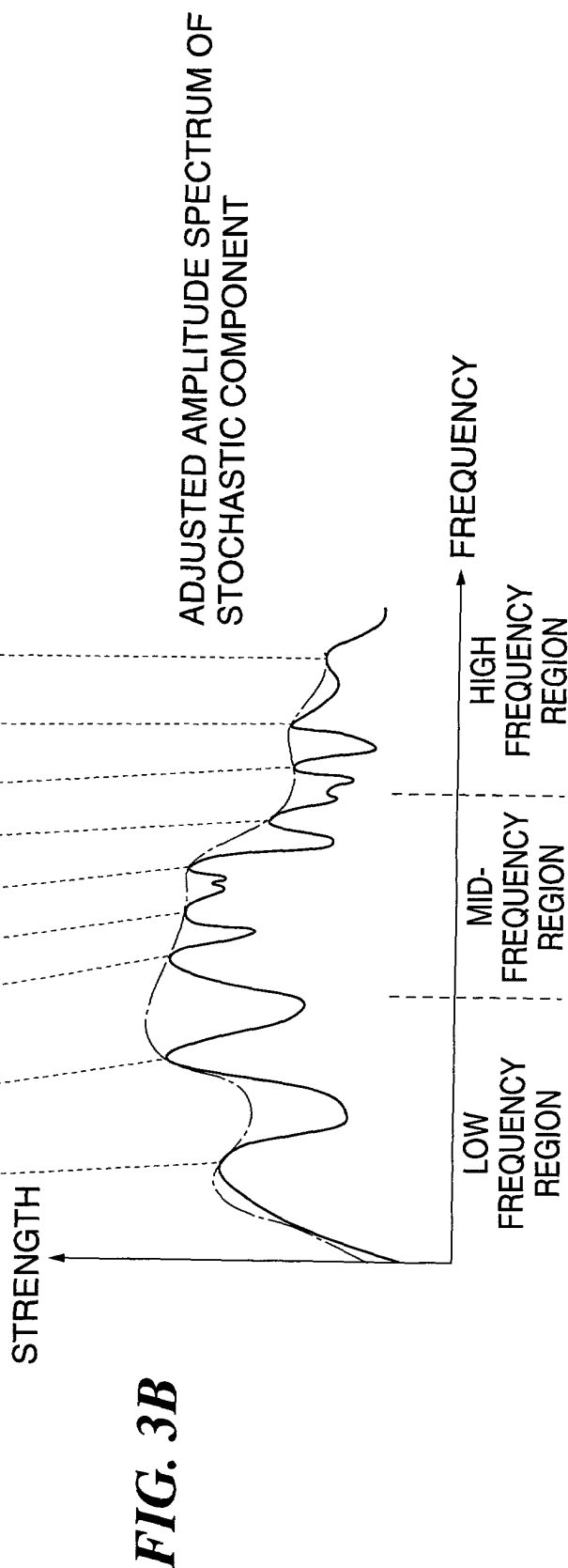
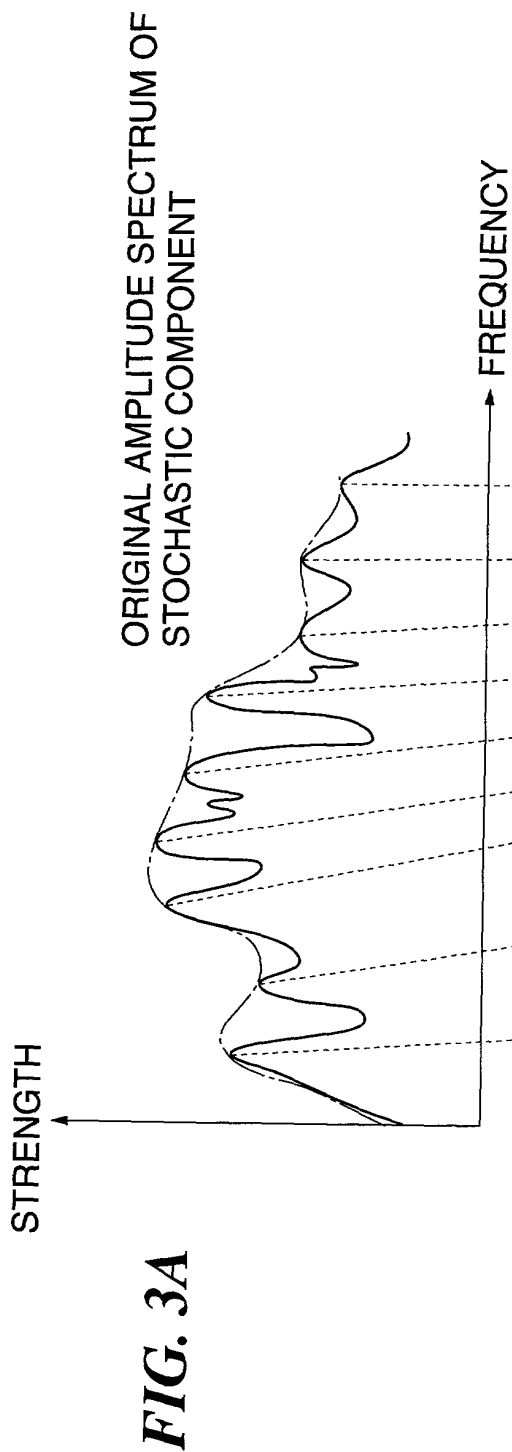


FIG. 2A





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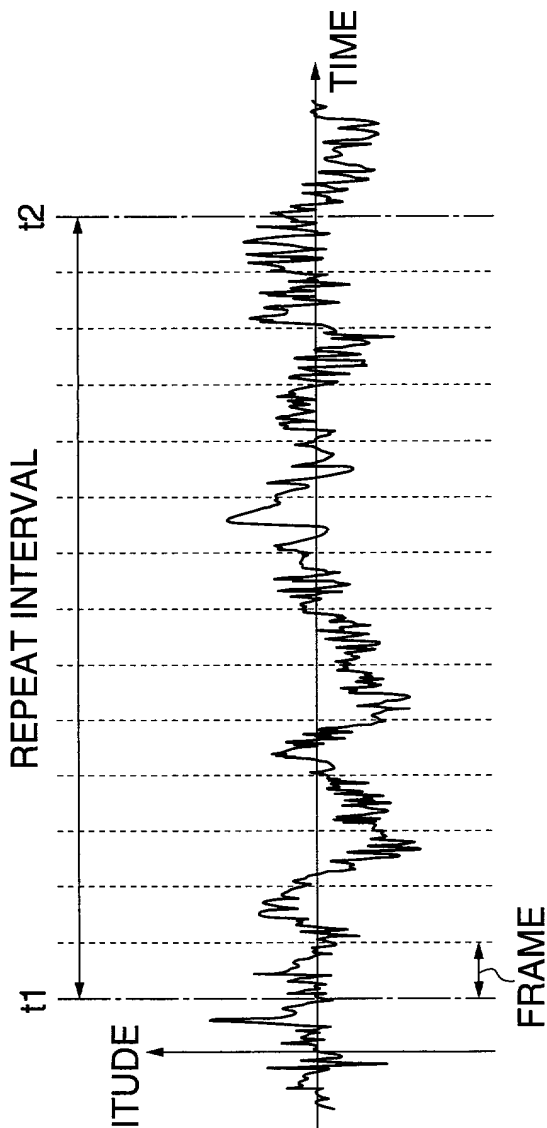


FIG. 4A

ORIGINAL RESIDUAL
WAVEFORM

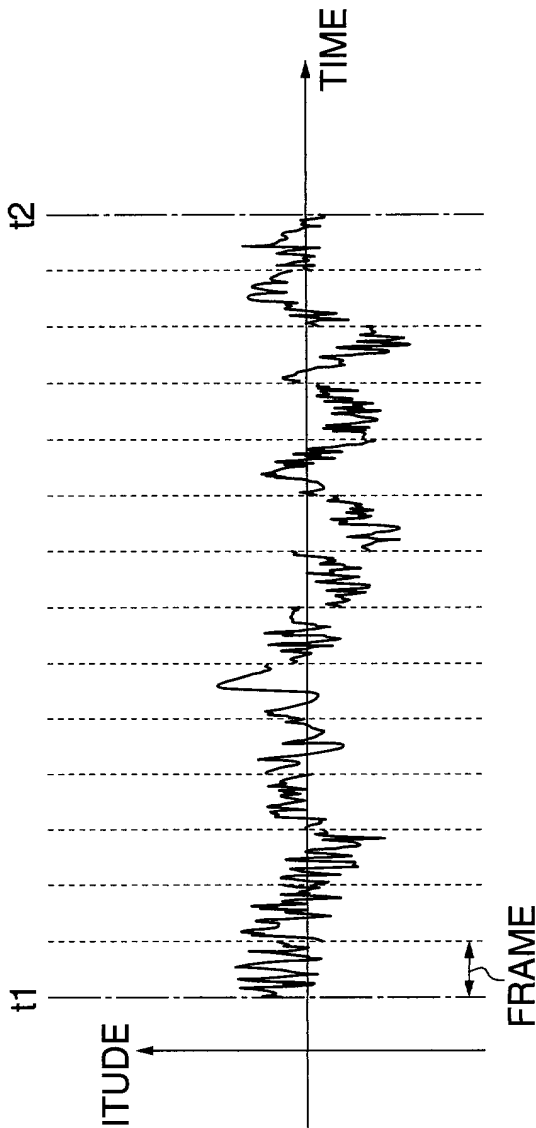
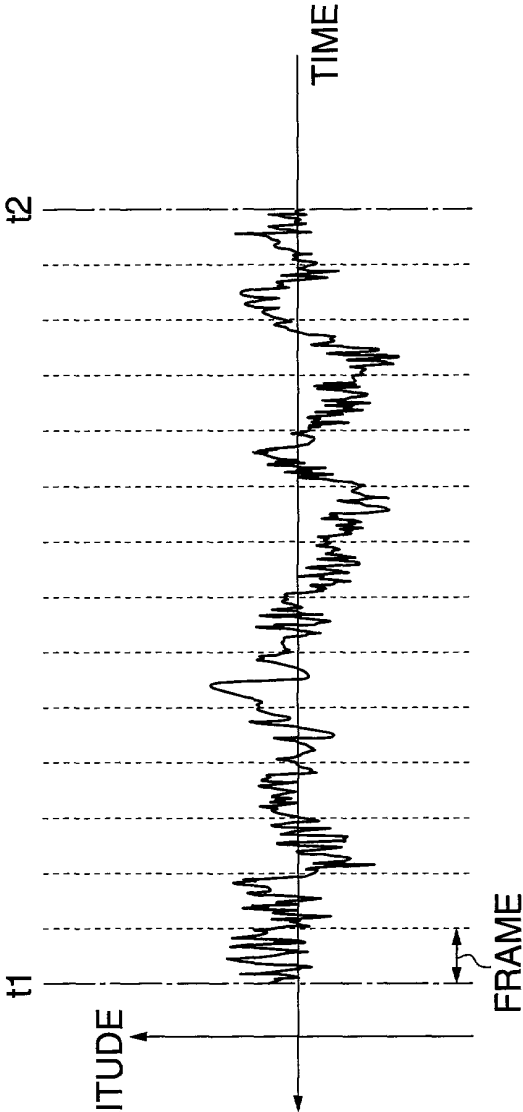


FIG. 4B

SYNTHESIS IN CASE WHERE
FRAMES ARE READ OUT
IN REVERSE DIRECTION
WITH PHASE UNCHANGED

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AMPLITUDE

SYNTHESIS IN CASE WHERE
FRAMES ARE READ OUT
IN REVERSE DIRECTION
WITH PHASE REVERSED

FRAME

t1

t2

TIME

FIG. 4C

FIG. 4C

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FIG. 5

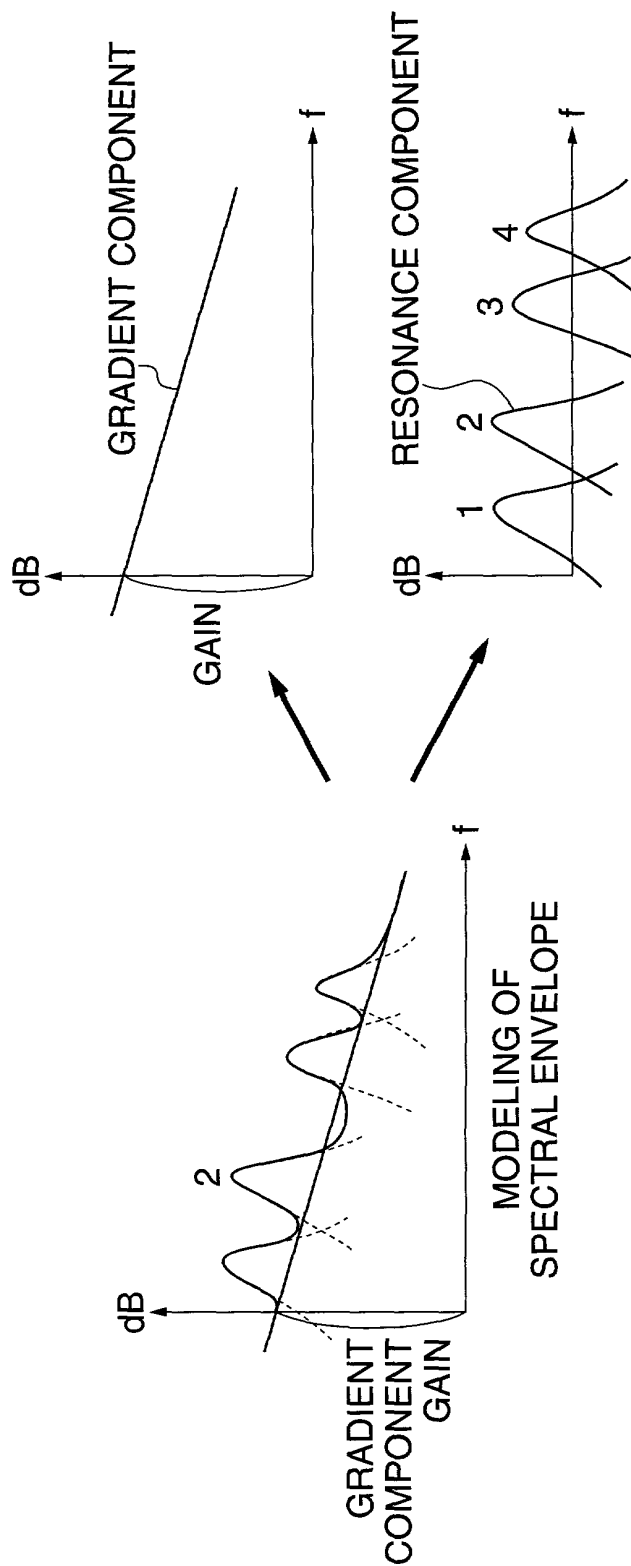
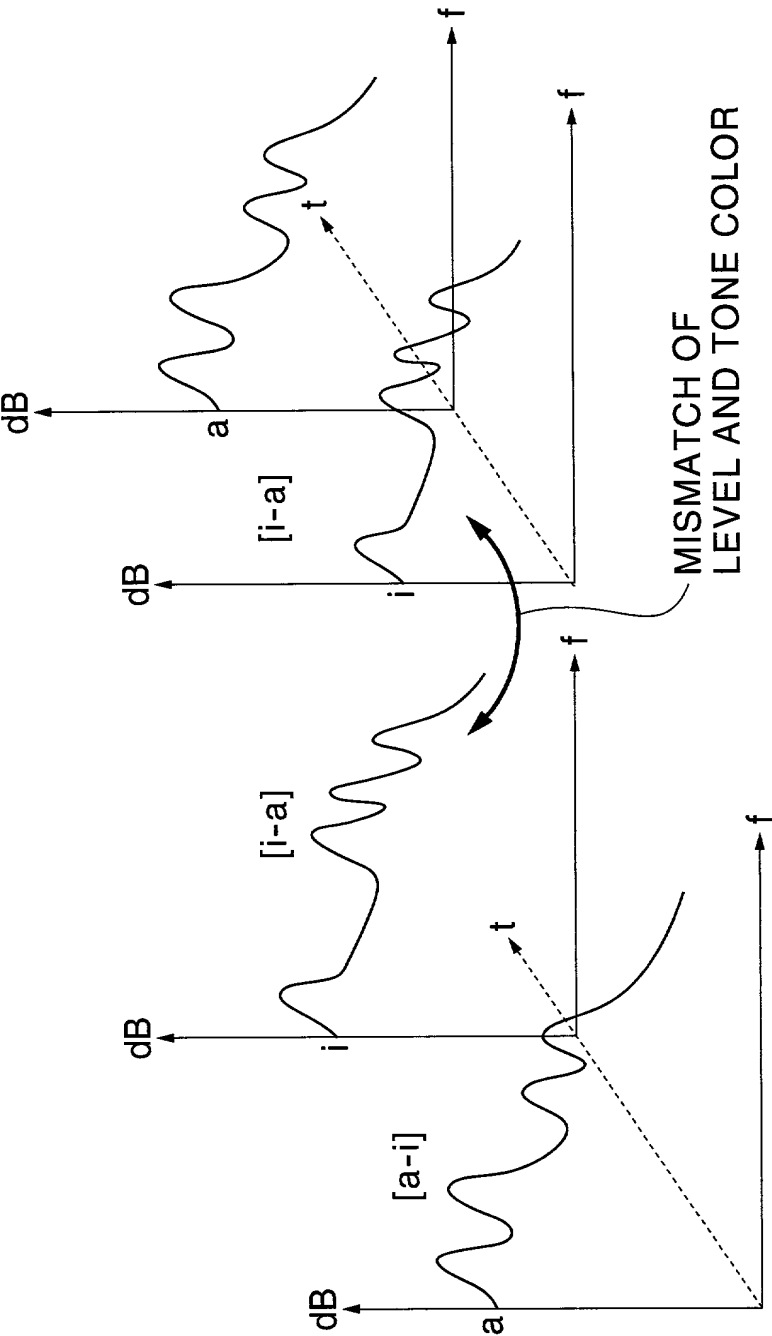


FIG. 6



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FIG. 7

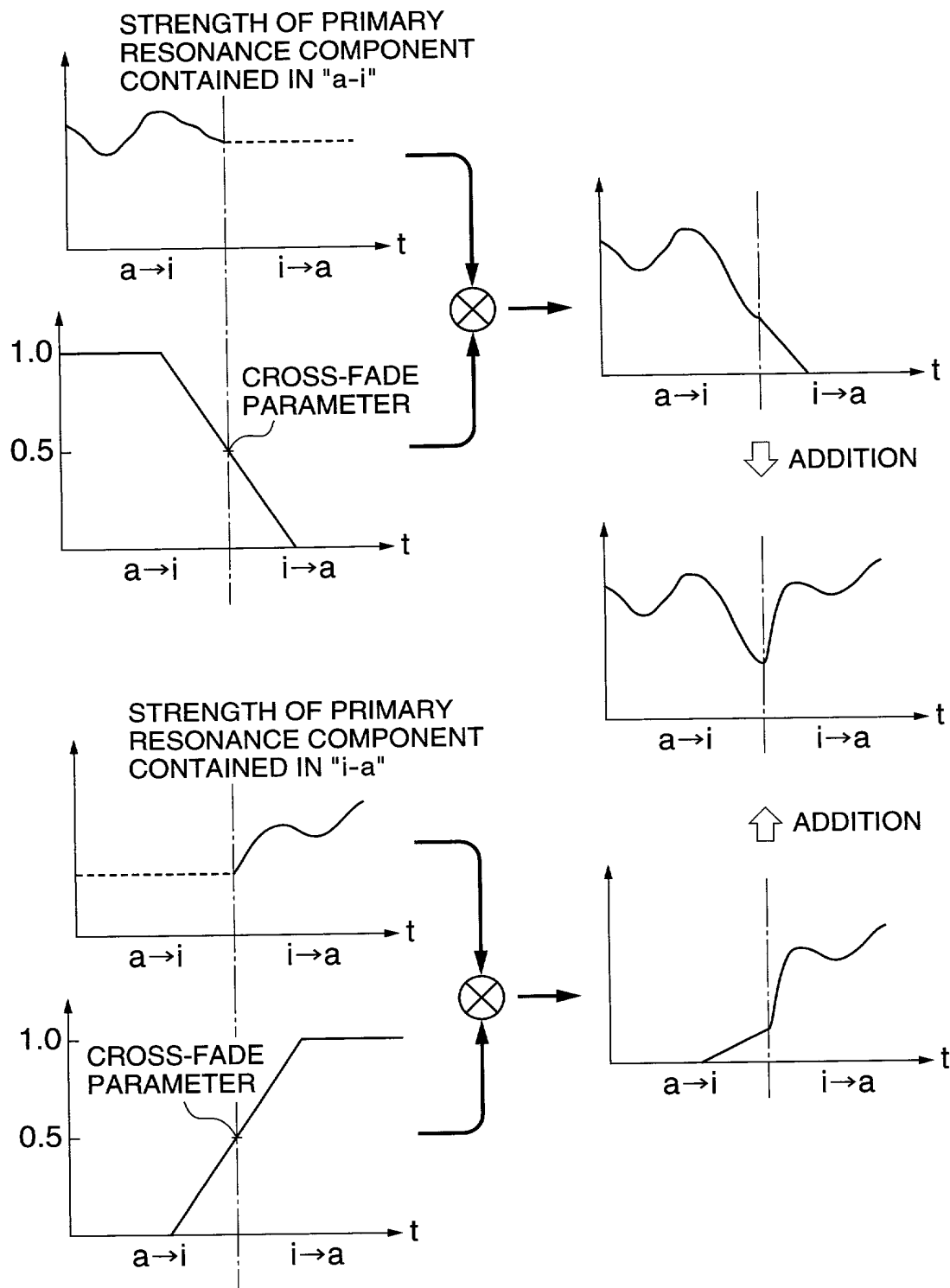


FIG. 8A

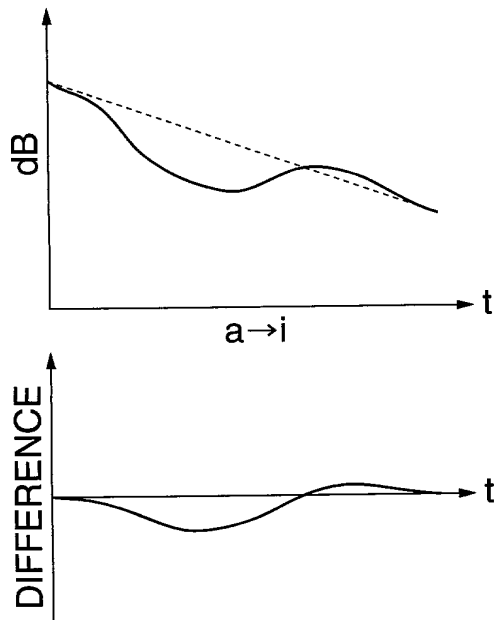


FIG. 8B

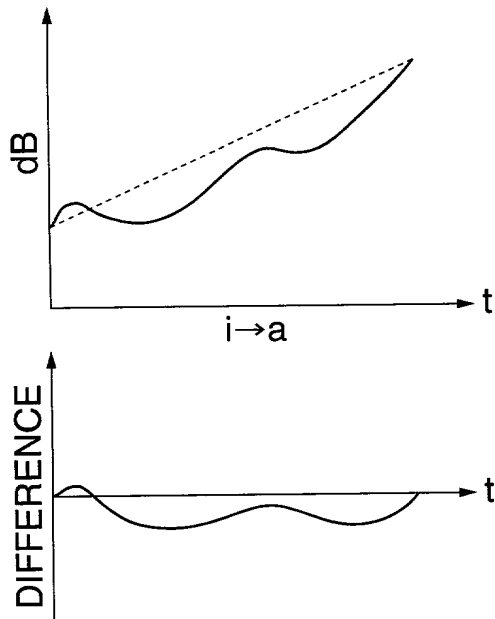
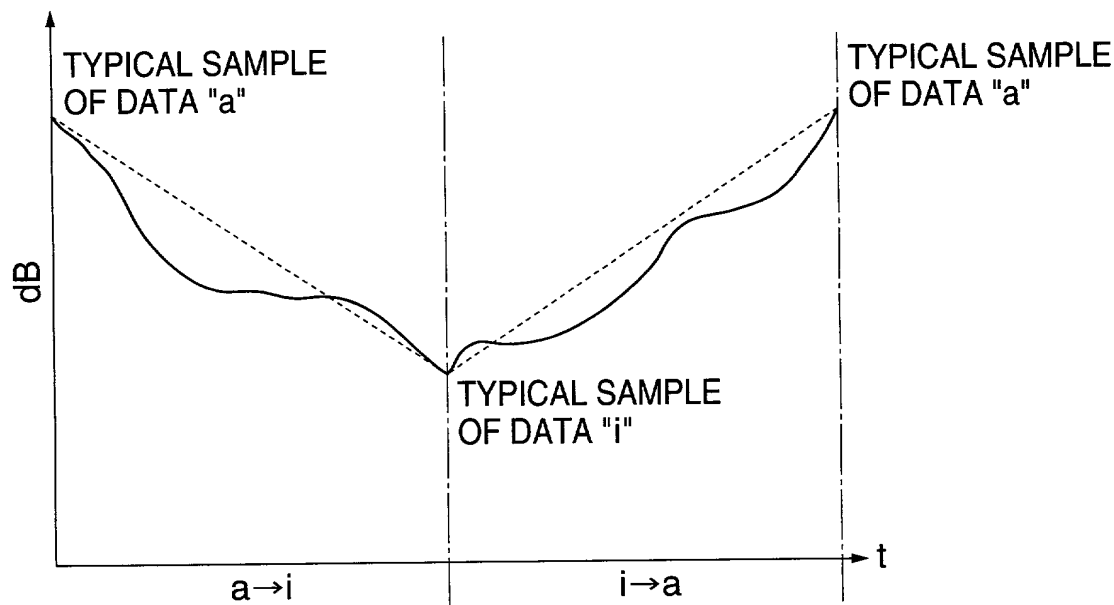
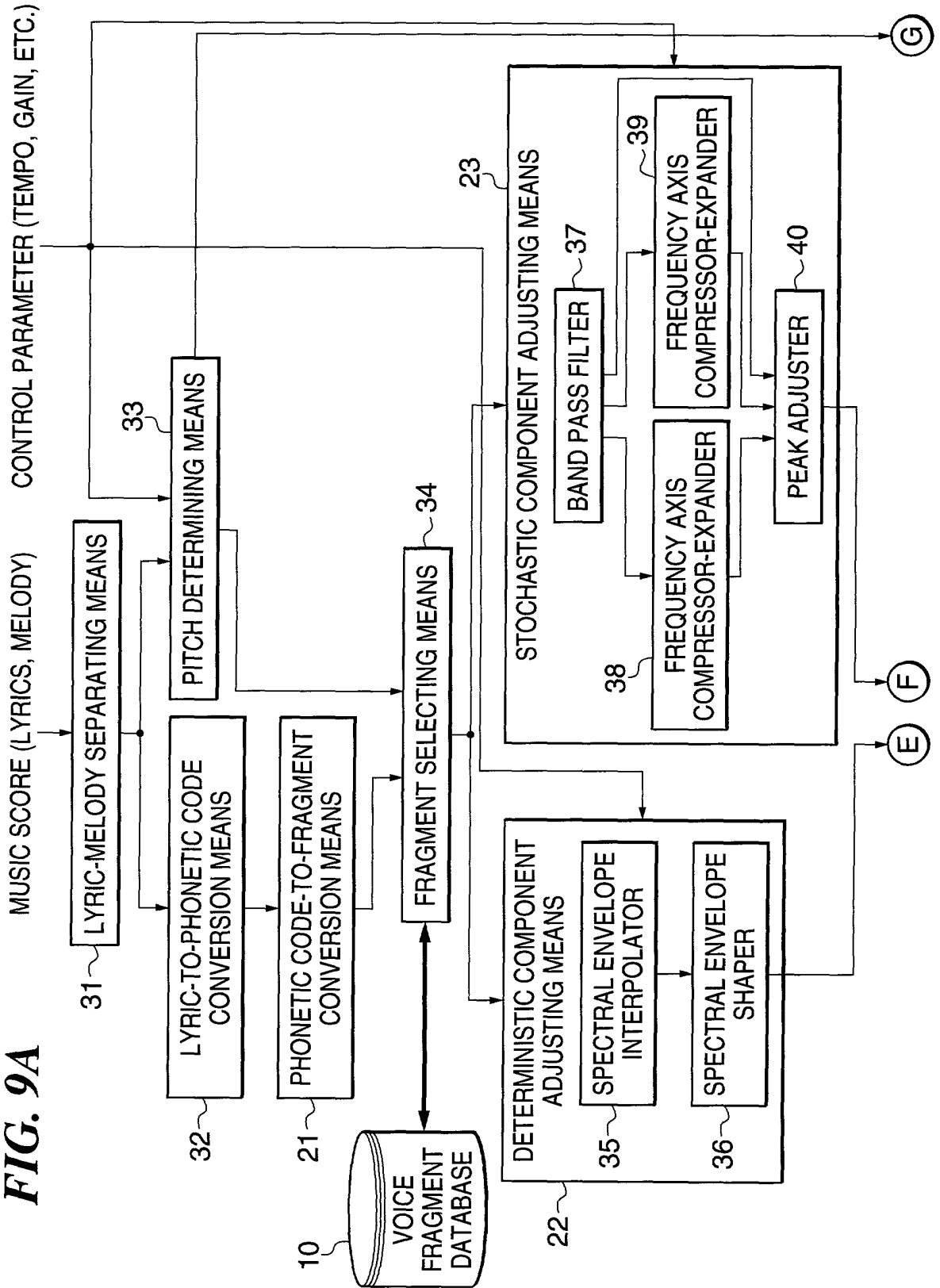


FIG. 8C



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FIG. 9A



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FIG. 9B

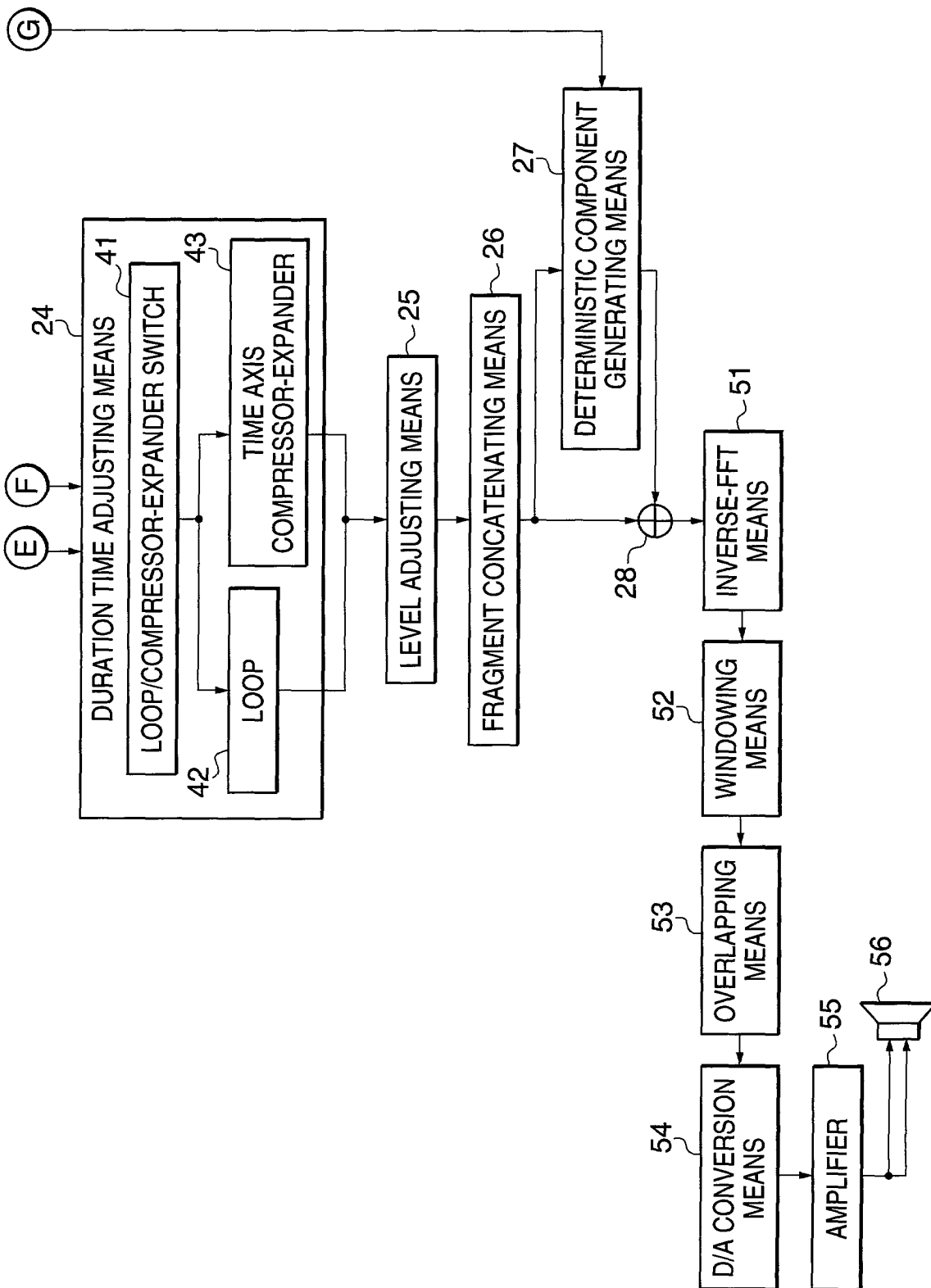


FIG. 10

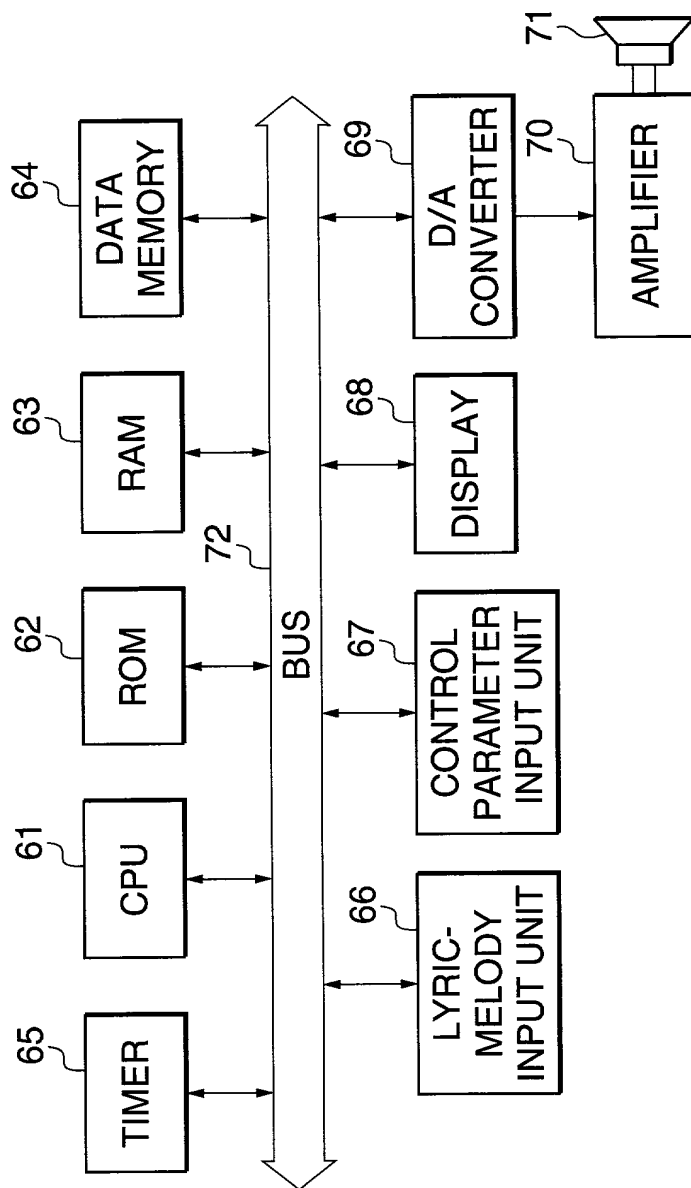


FIG. 11

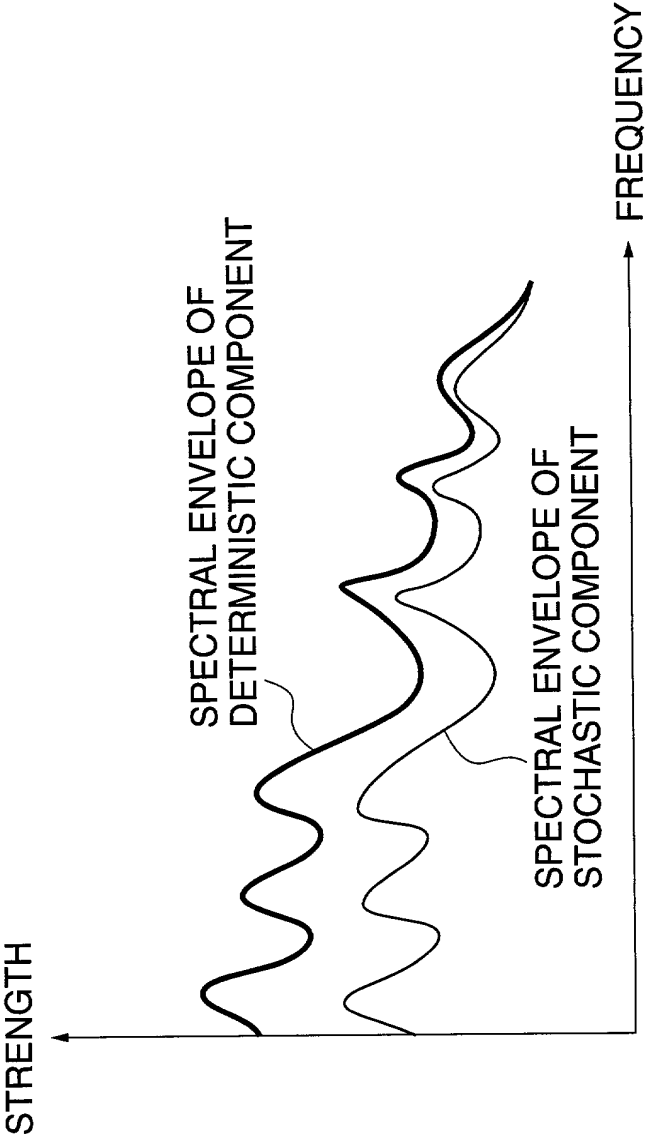


FIG. 12

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INPUT SINGING VOICE

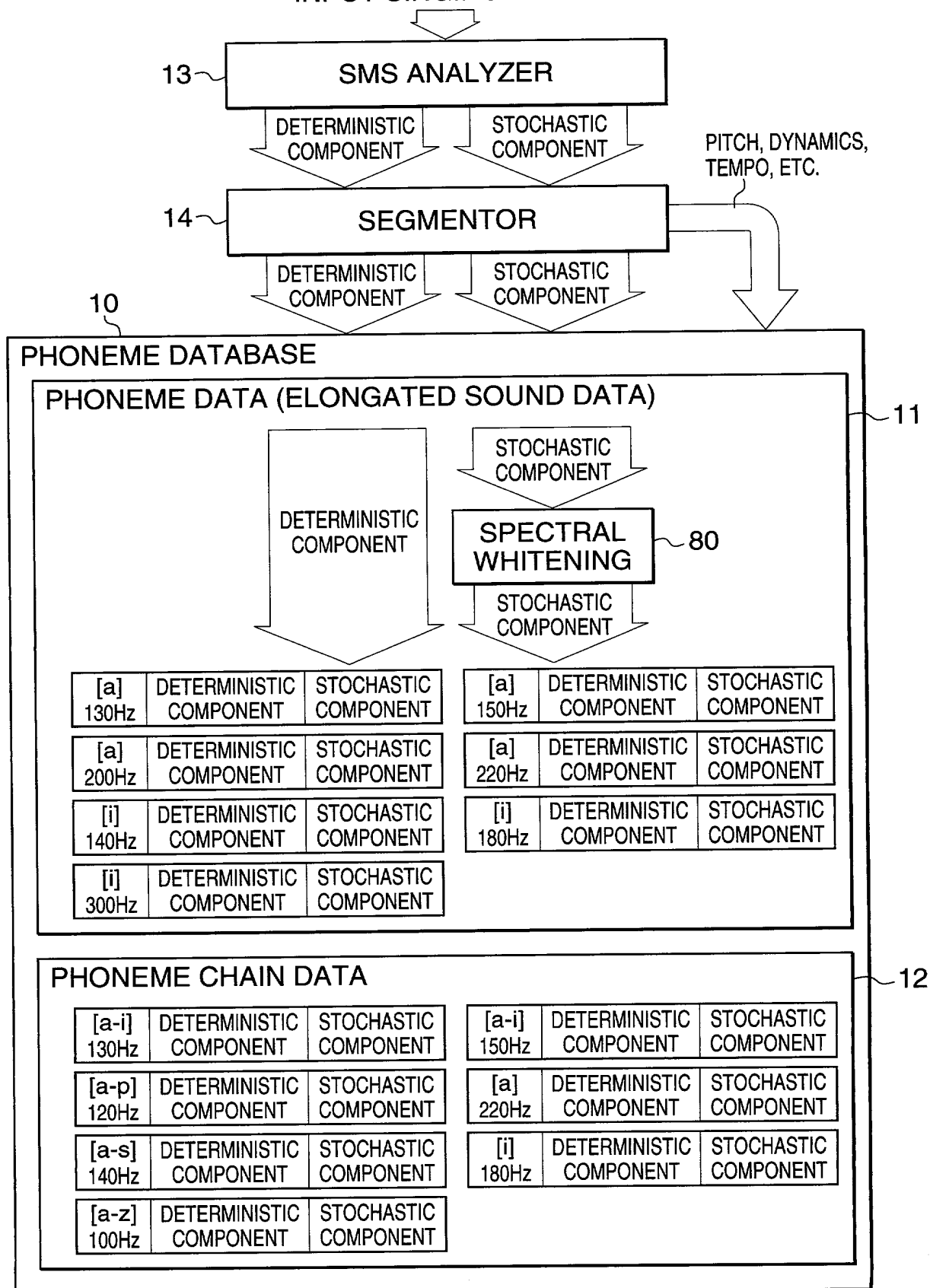


FIG. 13

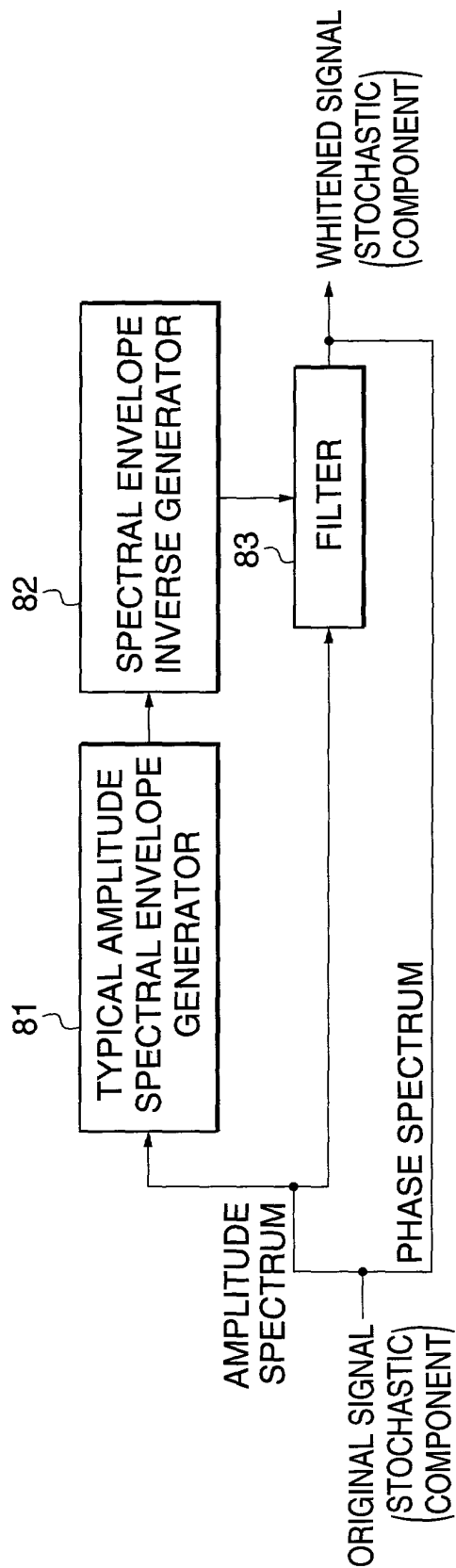
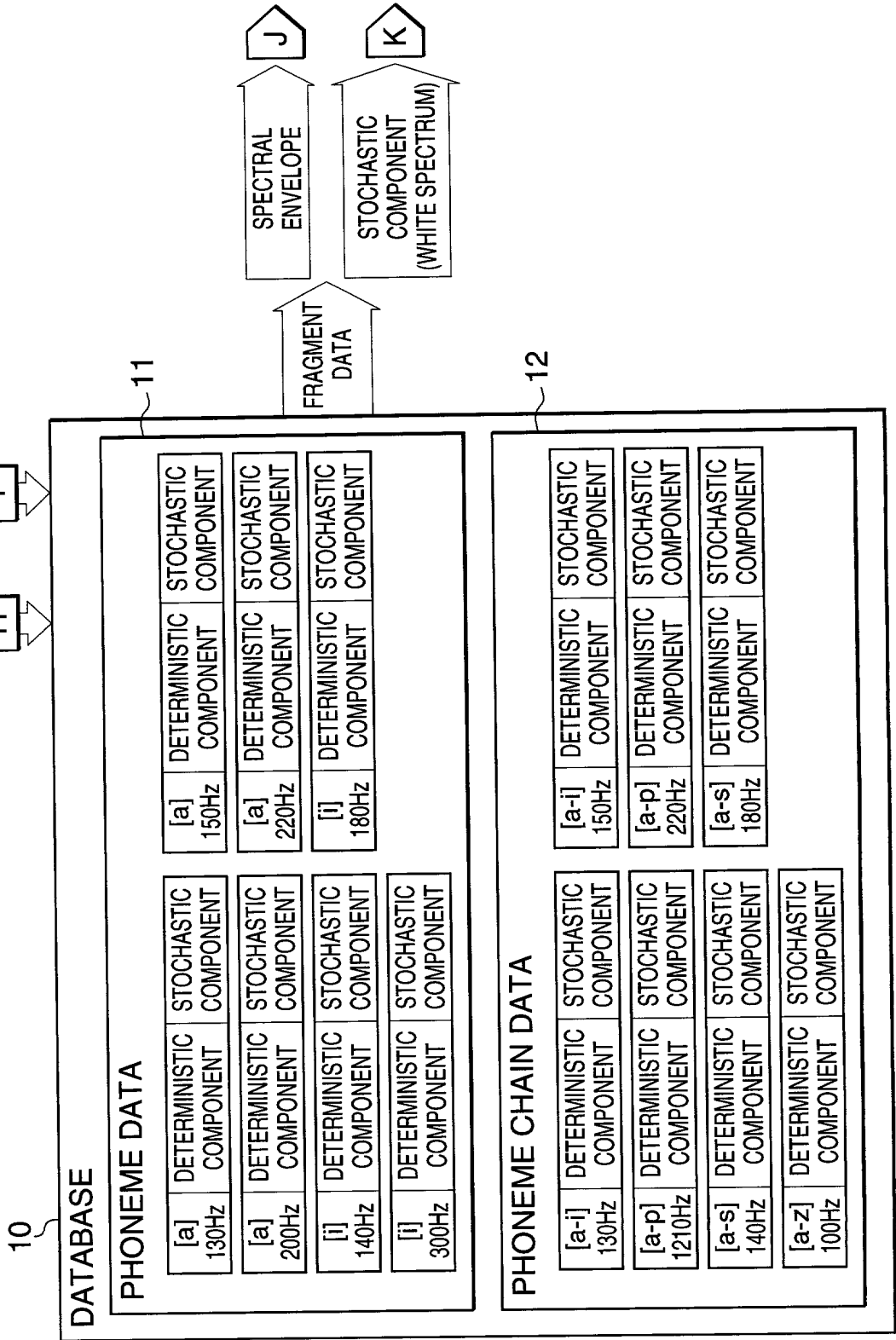


FIG. 14A



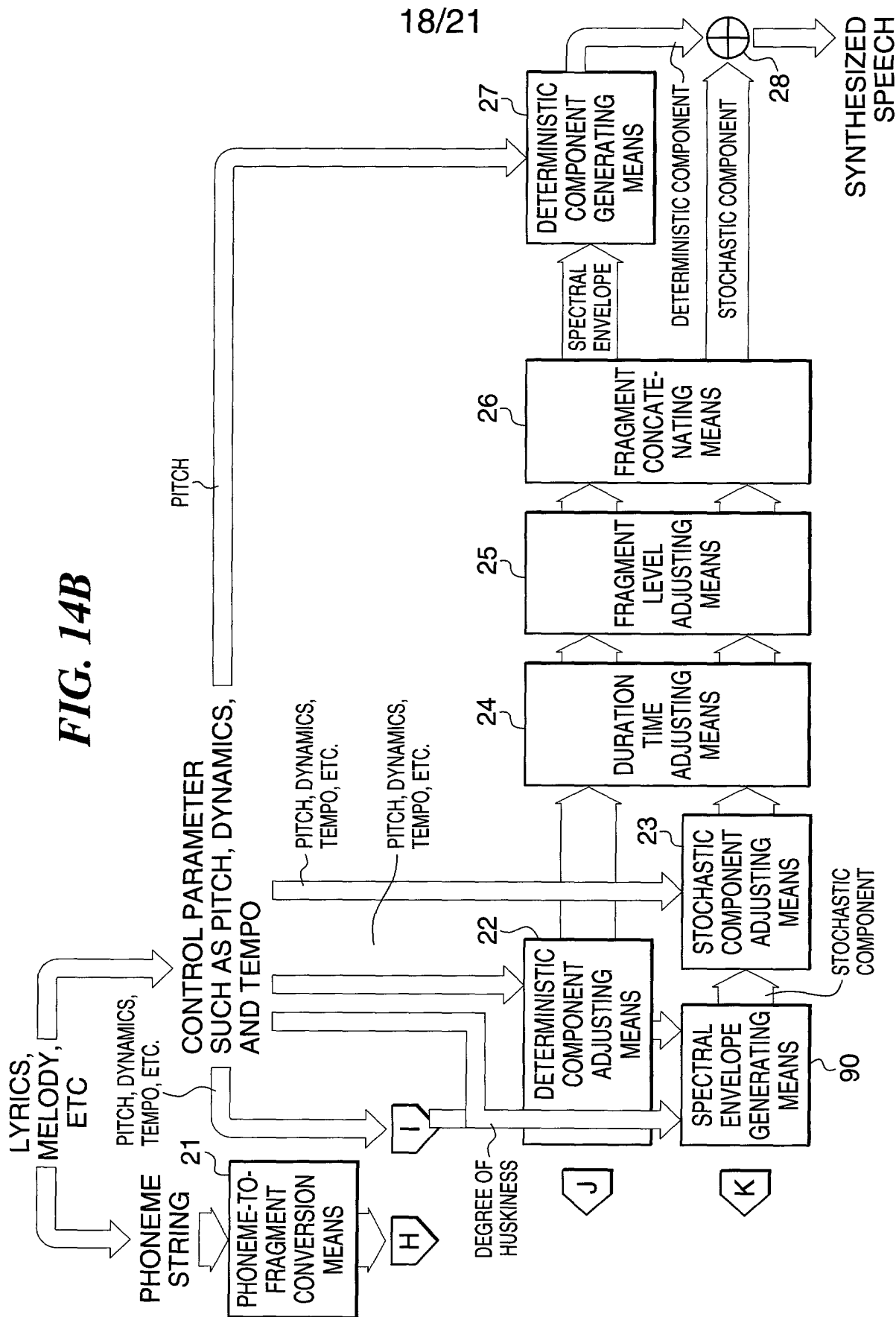


FIG. 15

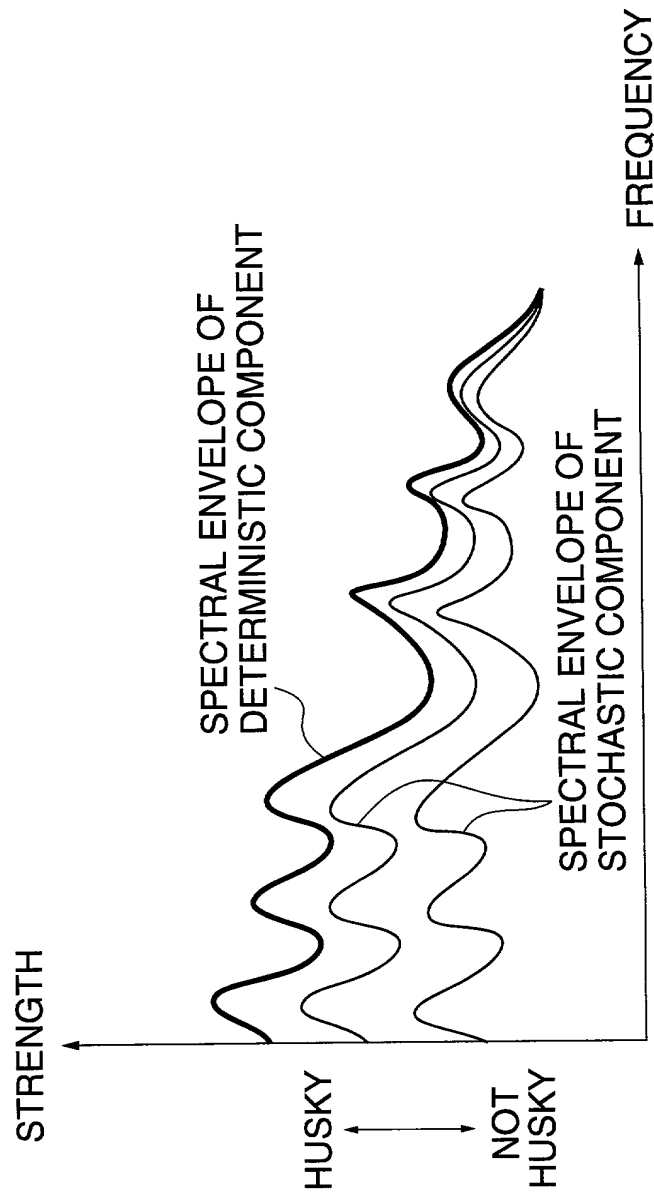


FIG. 16

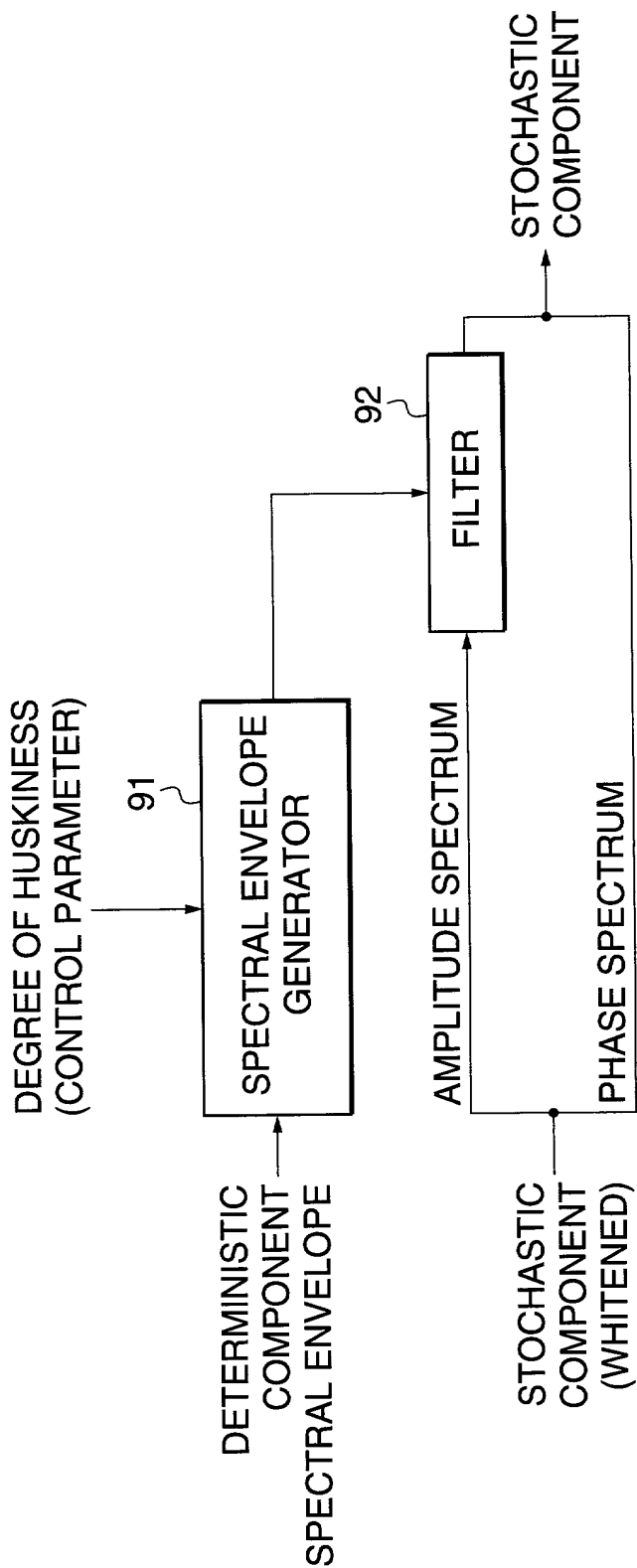


FIG. 17
PRIOR ART

